

Introduce Your Patients to Collagen Induction Therapy

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Cutaneous (skin) aging generally occurs from either intrinsic or extrinsic processes. Intrinsic aging results from natural skin tissue damage and degeneration. In humans, intrinsic aging is primarily characterized by atrophy of the dermis due to loss of collagen, degeneration in the elastic fiber network, and loss of skin integrity. Extrinsic aging is namely due to environmental factors such as solar and ultraviolet (UV) exposure. This process is often referred to as photo-aging.

Both conventional Western medicine and Traditional Chinese Medicine (TCM) agree that facial skin consists of three layers. The epidermis (*Fu*) is the top outer coat and visible to the naked eye. It is covered by a protective coating known as the acid mantle. Similar to *Wei Qi*, the acid mantle protects skin by combating the daily onslaught of chemicals, detergents and other irritants.

The bottom layer is called the hypodermis or subcutaneous layer (*Cou li*). Western belief states that this layer houses fat and determines the plumpness of your face. According to TCM, the *Cou li* functions as a gateway to regulate the discharge of body fluids from the skin and monitors the flow of *qi* and blood throughout the skin and into deeper systems. It also acts as a barrier to resist invasion by external pathogenic factors.

The middle layer, or stratum, is called the dermis (Ge). Dermal tissue is composed primarily of collagen and elastin. Collagen makes up 95-98 percent of the skin matrix, and gives the dermis its mechanical and structural integrity. Elastin composes the remaining 2-5 percent and is crucial to maintaining its elasticity and resilience. Blood vessels, oil glands, nerve fibers, hair follicles, and sweat glands are also located in this layer. The quality of cell maturation in the dermis determines skin health. As the aging process progresses, the synthesis and integrity of collagen and elastin diminishes. Consequently, skin becomes weaker, thinner and drier; resulting in a flaccid, wrinkled, hollowed appearance.

Collagen Induction Therapy (CIT)

Collagen Induction Therapy (CIT) is one of the fastest growing trends in the beauty industry. Touted as today's "miracle treatment" it is also referred as Percutaneous Collagen Induction (PCI), Skin Rolling, Skin Needling, Micro Needle Therapy, Dermalrolling, and Mesorolling. It involves the use of manually operated skin rollers that have approximately 200 fine surgical steel needles, similar to acupuncture needles, attached to the roller mechanism. It is manually rolled directly over the skin's surface in a crisscross motion. The objective is to puncture the skin, creating a microscopic trauma, in order to stimulate collagen and elastin production through the skin's natural wound healing process. The production of healthy collagen and elastin by CIT improves the appearance of aging skin by reducing the appearance of wrinkles, toning and refining the dermis, improving skin circulation and lymph

drainage, and minimizing scars or stretch marks.

Although skin abrasion for appearance enhancement dates back to early Egyptian times, this more moderate technique was developed in Italy in the early 1980s by Swiss-French dermatologist Dr. Philippe Simonin. He used an electroridopuncture technique with micro-current and acupuncture needling. In 1995, Dr. Andre Camirand pioneered the development of a small roller with multiple small needles that can be rolled across the skin to create tiny pinpricks. One year later, South African physician, Dr. Des Fernandes, introduced a small needle stamp, which he applied to the skin to induce collagen formation. He delivered his first paper on skin needling of the upper lip to the ISAPS congress in Taipei 1996. To date, there are numerous statistically sound publications from reputable sources supporting the efficacy of CIT.

For acupuncturists whose patients seek acupuncture for conditions such as skin wrinkling, loss of collagen, scar reduction, and other cosmetic concerns, CIT offers a cost effective alternative to fractional laser resurfacing, Botox™, and cosmetic fillers. CIT can be used as an at home skincare maintenance regime, or for deeper results, applied in an office setting. At home CIT is generally done by the patient with needles 0.2mm or 0.25mm in length, which only penetrates the epidermis. Longer needles for deeper penetration can be used for in-office treatments to realize a variety of therapeutic benefits: 0.5mm to activate hair growth, 1.0mm to soften deep wrinkles, 1.5mm to diminish scarring, and 2-3mm for cellulite reduction on the body.

When using CIT in a clinical setting, a topical anesthetic cream applied to the area of concern is recommended to increase patient comfort. In my practice I apply a thick layer of lidocaine 2.5% and prilocaine 2.5% cream to the skin surface 30 minutes prior to treatment. While waiting for the numbing effect to occur, the patient receives acupuncture to minimize surface redness and inflammation (ST 41, 36, SP 10, LI 4, 11, TH5, TH 17, ST 7, 8). For additional therapeutic benefits a Light Emitting Diode (LED) lamp is placed 2-4" over the face. LED utilizes pure spectrum light colors of red (collagen and elastin building), blue (surface anti-microbial), yellow (lymph stimulation), green (pigmentation normalizing), and far infrared heat to enhance circulation and stimulate lymph drainage. After 30 minutes, acupuncture needles and LED are removed. The remaining lidocaine is wiped clean with a moist warm cloth. CIT is applied to the skin using the appropriate needle length for the desired effect. Rolling technique may vary depending upon the condition. For maximum results, CIT treatment is repeated every ten days for three to five sessions followed by maintenance every six to eight weeks.

Benefits of CIT

- Stimulates the production of collagen and elastin in the dermis
- Reduces skin wrinkling
- Improves skin firmness
- Minimizes acne, ice pick, and chickenpox scars
- Softens stretch marks and surgical scars
- Breaks up and reduces the appearance of cellulite
- Improves skin circulation
- Stimulates lymphatic drainage
- Lightens sun and age spots
- Diminishes the appearance of large pores
- Evens skin color and texture

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